Digital Object Lifecycle in dLibra Digital Library Framework

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PSNC Activity

- Established in 1993
- Now
  - 5 departments
  - 140 employees (over 40 in EU projects)
- Operator of Poznań Metropolitan Area Network POZMAN
- Operator of Polish National Research and Education Network PIONIER
- HPC Center
- Systems and Network Security Center
PSNC Activity

• R&D Center for:
  – New Generation Networks: POZMAN and PIONIER networks, 6-NET, ATRIUM, Muppet, ...
  – HPC and Grids: GRIDLAB, CROSSGRID, VLAB, PROGRESS, Clusterix, HPCEuropa, ...
  – Portals and Content Management Tools: Polish Educational Portal "Interkl@sa", Multimedia City Guide, dLibra Digital Library Framework, Interactive TV
Polish Optical Internet PIONIER
What is dLibra?

• First Polish digital library framework
• Developed in PSNC since 1999
• Now deployed in
  – Wielkopolska Digital Library (10.2002)
  – Wroclaw University of Technology Digital Library (11.2004)
  – Four other installations in different Polish universities
dLibra Features

• Multitier, distributed and portable DL platform
• Support for multiple content types (HTML, PDF, DjVu, …)
• Hierarchic collections
• Resources versioning
• Advanced support for resources’ metadata (DublinCore, MARC, RDF, RSS)
• Multiple searching mechanism
• Extended access management (LDAP, Single Sign-On)
Technical Details

• Written in Java™ (RMI, Servlets, JMX, JNLP, Swing, JAXP, JAXB, Applets, …)
• Open source projects used: Lucene, Velocity, Hibernate, Commons, Java Service Wrapper, Ehcache, …
• Current version: 1.6.1
• Next version: 2.0 (June 2005)
Digital Library of Wielkopolska gives you access to the oldest Polish writing relics. On our page you can also read scientific scripts and monographies and see exhibitions with unique resources from various Wielkopolska libraries.

Number of publications in library: 4248
Current number of users in library: 61
Total number of users since Jun 11, 2004: 258464

Search for publications where:
- Publication content or attributes
- contains

Use synonyms Clear query

Proper query syntax

Titles index
Authors index
Keywords index

Click here to start directory search

RSS Feeds
- RSS 2.0 25 last publications
- RSS 2.0 Planned publications
<table>
<thead>
<tr>
<th>Attribute</th>
<th>Value</th>
</tr>
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<tbody>
<tr>
<td>Title</td>
<td>Wiadomości Kościelne Parafii Matki Boskiej Bolesnej na św. Łazarzu w Poznaniu 1937.12.26 R.23 nr 52</td>
</tr>
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<td>Subject and Keywords</td>
<td>Kościół Katolicki. Archidiecezja Poznańska -- historia. ; Parafie ; Parafia Matki Boskiej Bolesnej na św. Łazarzu w Poznaniu ; Dzienniki i czasopisma religijne</td>
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<tr>
<td>Publisher</td>
<td>Poznań; Biuro Parafialne</td>
</tr>
<tr>
<td>Contributor</td>
<td>Jeliński, Franciszek (red. odpowiedzialny)</td>
</tr>
<tr>
<td>Date</td>
<td>1937.12.26</td>
</tr>
<tr>
<td>Resource Type</td>
<td>czasopisma</td>
</tr>
<tr>
<td>Format</td>
<td>image/x.djvu</td>
</tr>
<tr>
<td>Language</td>
<td>pol</td>
</tr>
<tr>
<td>Rights Management</td>
<td>Biblioteka Uniwersytecka w Poznaniu</td>
</tr>
</tbody>
</table>

DublinCore schema version 1.1 attributes
Digital Library of Wielkopolska

Dziennik Poznański 1926.09.30 R.68 nr225

Transferring data from www.wbc.poznan.pl...
Digital Object Lifecycle - Step 1

[create]

Digital object

[remove]
dLibra Digital Object Structure

• Publication
  – Consists of files
  – One of publication files is called „main file”
  – Each file can have multiple versions
  – Set of versions creates an edition
  – Edition can be published or not
  – Readers can access only published editions
Digital Object Lifecycle - Step 2

- Unpublished digital object
  - [create]
  - [publish]
  - [unpublish]
  - [remove]

- Published digital object
  - [publish]
  - [unpublish]
  - [remove]

- [remove]
Regional Digital Libraries

• Majority of dLibra installations are regional digital libraries

• Regional digital library = consortium of academic and public libraries

• Need for support of concurrent digitalization in libraries
Digital Object Lifecycle - Step 3

- Planned digital object
  - [create]
  - [add content]
- Published digital object
  - [publish]
  - [unpublish]
- Unpublished digital object
  - [create]
- [remove]

May 13, 2005
9th DELOS Workshop, Heraklion
Deleted digital objects

- Part of OAI-PMH protocol
- Very useful in synchronization of distributed instances
- Allows to improve persistence of references to digital objects
- Object can be still removed from system
Digital Object Lifecycle - Step 4

Planned digital object

Unpublished digital object

Published digital object

Deleted digital object

[create]

[create]

[add content]

[publish]

[unpublish]

[delete]

[delete]

[remove]

[remove]

[remove]
Summary

• dLibra digital object lifecycle
  – Planned objects
  – Unpublished objects
  – Published objects
  – Deleted objects

• Presented lifecycle evolved during our works
Future works

• Distributed search mechanisms with OAI-PMH protocol
• Advanced digital objects format
• Migration of users profiles between distributed digital libraries
Digital Object Lifecycle in dLibra Digital Library Framework

Thank you for your attention

http://dlibra.psnr.pl/